1986 New Brunswick Atlantic Salmon Sport Fishery Statistics

prepared by

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ATLANTIC SALMON RIVERS OF NEW BRUNSWICK
QUEBEC
MAINE
P.E.I.
NOVA SCOTIA
GULF OF ST. LAWRENCE
BAY OF FUNDY
CHALEUR BAY
NORTHUMBERLAND STRAIT
RIVER TYPES
CATEGORY
DESCRIPTION
RESTIGOUCHE
UPSALQUITCH
CHARLO
JACQUET
TETAGOUCHE
MIDDLE
LITTLE
NEPISIGUIT
TABUSINTAC
BARTIBOG
MIRAMICHI
N. W.
N. SEVOGLE
S. SEVOGLE
L. SEVOGLE
LITTLE S.W.
RENOUS
DUNGARVON
BARTHOLOMEW
S.W.
MAIN
TAXIS
CAINS
GASPEREAU
SALMON
WASHWAAK
CANAAN
PETITCODIAC
KENNEBECASIS
HAMMOND
MAGAGUADAVIC
DIGDEGUASH
ST. CROIX
SCOUDOUC
TABUSINTAC
BLACK
BOUCTOUCHE
COCAGNE
SHEDIAC
RICHIBUCTO
KOUCHIBOUGUAC
BLACK
BAY DU VIN
BASS
S. CARAQUET
POKEMOUCHE
TRACADIE
ARGOSTOOK
SALMON
TOBIQUE
SQUAPEHAGE
LITTLE SOUTHWEST
NORTH
SOUTH
LITTLE
BIG SALMON
LITTLE SALMON
POINT WOLFE
UPPER SALMON
MACTAQUAC
MEMRAMCOOK
PETITCODIAC
COVERDALE
HILLSBOROUGH
HARVEY
ANAGANCE
ANCAGANCE
GASPEREAU
TANTRAMAR
SCOUDOUC
HERRING
NEW BRUNSWICK

INTRODUCTION

The sampling base provided by the sale of angling licences provides an opportunity to obtain Atlantic salmon catch and effort information through a mail questionnaire. Second reminders were utilized to elicit responses from resident anglers only delinquent in sending in their catch records. Approximately 31% of licenced anglers are randomly censused.

This report presents an overview of the 1986 Atlantic salmon sport fishery season. Detailed reports, available in early March, will present and analyze catch and effort statistics as well as discuss past and future angling trends and fish abundance.

SUMMARY

Licence Sales

Angling licence sales increased to 19,751 in 1986 over 1985, resident sales increasing by 1,264 and non-resident sales by 709 (Table 1). Licence sales are still several thousand less than in 1982 or 1983 probably for two reasons:

- the implementation of a "grilse only" season in 1984
- poor angling quality (0.12 to 0.30 fish per angler day) experienced by anglers from 1977 to 1983

Improved angling quality (0.49 to 0.57) in 1985 and 1986 is responsible for licence sales increases.

Angling Effort and Catch

Miramichi Rivers:

Miramichi drainage rivers supported 57% or 74,000 angler days of New Brunswick angling effort in 1986. Angling effort on the Little S.W. Miramichi exceeded Northwest Miramichi for the first time; approximately 3,000 days of effort was displaced from the Northwest to the Little Southwest due to better angling (Table 2).

Angling catches nearly doubled on the main Southwest, Miramichi, Little Southwest Miramichi and Renous rivers; only the Renous, Cains and Little Southwest Miramichi experienced increased effort (Table 3). Late bright season (September 1 - October 15) angling effort, catch and quality were the best experienced by Miramichi rivers, especially Cains, since 1967.

Northeast Shore Rivers:

The Bartibog and Tabusintac, traditional late run rivers, supported a threefold angling effort increase in 1986 over 1985. The angling catches were highest since 1982 for the Bartibog and 1967 for the Tabusintac.

East Bay of Fundy Rivers:

Rivers entering the eastern portion of the Bay of Fundy have unique salmon populations in that they seldom leave Bay of Fundy waters and have a high incidence of repeat spawners. Unlike most other New Brunswick rivers, eastern Bay of Fundy rivers experienced very low grilse runs in 1986 and hence, low angling effort and catch (Table 4). Big Salmon River anglers caught only 464 salmon and grilse in 1986 compared with over 1,500 angled fish in previous years. Fluctuations in grilse abundance in Big Salmon

River is not an unusual occurrence. Very low angling effort occurred on the Alma and Petitcodiac rivers.

St. John Rivers:

St. John drainage rivers experienced a 43% increase in effort in 1986 over 1985, but effort was considerably below the 1981-1983 mean of 48,000 days. St. John and Nashwaak river catches nearly doubled in 1986 over 1985 but Tobique River catches decreased by 500 fish mainly due to the absence of grilse.

The Kennebecasis River attracted over 2,600 days of angling in 1986 resulting in catches of 267 grilse and 474 large salmon or best angling on the river since 1969.

Hammond River catches were poor in 1986 despite high angling effort of 2,665 days.

West Bay of Fundy Rivers:

The St. Croix River supported measurable angling effort and catch for the first time. Anglers reported nearly 400 days effort, catching 102 grilse and 50 salmon. This mildstone hopefully represents the beginning of a successful river restoration joint effort between U.S.A. and Canadian government fisheries agencies.

The Magaguadavic River supported similar angling effort as in past years but grilse catches improved substantially (119 fish) over past years. Every effort should be made by anglers and fishery officials to maximize large salmon escapement on the Magaguadavic River in 1987:

- the river has extensive habitat area to produce 2,000+ salmon and grilse each year to the angler
- the improved grilse abundance in 1986 indicates an improved run of large salmon in 1987
- improved fishway passage facilities at Magaguadavic Falls should provide better access to the river than ever before

Restigouche Rivers:

Restigouche drainage rivers have always provided New Brunswick's finest quality angling. Restigouche Rivers in 1986 provided their finest quality angling in 20 years: 1.32 fish per angler day or more than twice the 1986 provincial average. Restigouche angling quality may be the world's best.

Angling effort on Restigouche rivers was slightly less than the 1985 effort, but only about one-half of the effort in 1981. Nevertheless, catches were largest since 1967. The main Restigouche and Upsalquitch rivers, in particular, show most improvement, anglers catching 6,500 fish on the Restigouche and 2,200 fish on the Upsalquitch.

1987 Angling Season Predictions:

Grilse angled per angler day in 1986 provide some insite to the numbers of large salmon which will be captured by anglers in 1987. The Miramichi anglers in 1987 should experience a 12% increase, Restigouche anglers a 25%+ increase and St. John anglers a small decrease in large salmon catches compared with 1986.

TABLE 1. Summary of Atlantic salmon catch and effort statistics compiled by the "Fishsys" method, 1982-1986

	1982	1983	1984	1985	1986
	No. or %	No. or %	No. or %	No. or %	No. or
Licence Sales and Return Statistics					
Angling licences purchased - Resident	17,950	17,717	12,637	13,620	14,884
- Non-Resident	4,585	4,680	3,482	4,158	4,867
- TOTAL	22,535	22,397	16,119	17,778	19,751
Fish kill reports returned (insample)					
- Resident	87%	59%	62%	63%	63%
- Non-Resident	77%	57%	68%	56%	49%
- TOTAL	85%	57%	68%	62%	59%
Resident Statistics					
Licenced anglers who did not fish	19%	19%	18%	23%	14%
Licenced anglers who fished unsuccessfully	34%	50%	31%	25%	29%
Licenced anglers who fished successfully	47%	31%	51%	52%	57%
Total days fished	143,511	147,587	89,162	87,554	109,147
Total Atlantic salmon caught	33,311	15,134	33,501	37,933	51,232
Catch per rod day					
- all salmon	0.23	0.10	0.38	0.43	0.47
- grilse	0.18	0.07	0.25	0.26	0.29
- large salmon	0.05	0.03	0.13	0.17	0.18
Non-Residents Statistics					
Licenced anglers who did not fish	1%	1%	0%	4%	2%
Licenced anglers who fished unsuccessfully	25%	46%	21%	30%	22%
Licenced anglers who fished successfully	74%	53%	79%	66%	78%
Total days fished	22,321	26,710	15,437	15,569	20,831
Total Atlantic salmon caught	11,498	7,118	11,392	13,796	23,400
Catch per rod day					
- all salmon	0.51	0.27	0.46	0.88	1.12
- grilse	0.36	0.19	0.28	0.45	0.52
- large salmon	0.15	0.08	0.74	0.43	0.60
Residents and Non-Residents					
Total days fished	161,028	177,580	104,298	104,065	129,978
Total Atlantic salmon caught	43,974	21,120	45,277	51,166	74,632
Catch per rod day					
- all salmon	0.27	0.12	0.43	0.49	0.57
- grilse	0.21	0.09	0.28	0.28	0.32
- large salmon	0.06	0.03	0.15	0.21	0.25

TABLE 2. Total angling effort (rod days) for Atlantic Salmon on New Brunswick rivers, 1981 - 1986.

River	1981	1982	1983	1984	1985	1986
Main Southwest Miramichi	45,331	47,268	54,790	34,779	36,344	35,491
Little SW Miramichi	9,267	6,606	11,050	4,751	7,372	11,005
Northwest Miramichi	12,918	18,387	16,610	9,806	13,128	10,203
Sevogle	2,975	3,708	3,730	2,168	2,964	5,071
Renous	4,053	4,698	3,610	3,881	3,195	7,270
Dungarvon	1,517	1,575	1,520	1,477	1,848	2,639
Cains	1,851	2,286	1,940	1,864	808	2,216
Black	394	207	870	193	0	163
Rocky Brook	66	9	10	41	0	25
Clearwater Brook	185	90	150	27	211	43
Bartholomew River	0	18	30	0	0	0
North Pole	684	99	0	0	19	69
Subtotal	79,241	84,951	94,310	58,987	65,889	74,195
Bartibog	59	603	640	221	134	483
Tabusintac	780	2,043	2,180	1,118	308	1,147
Big Tracadie	148	864	730	41	19	327
Caraquet	1,301	459	440	551	0	17
Pokemouche	0	81	0	0	0	0
Subtotal	2,288	4,050	3,990	1,891	461	1,974
Big Salmon River	6,939	8,604	6,060	4,254	2,483	2,104
Alma	334	0	140	290	19	17
Little (Coverdale River)	0	0	100	138	0	0
Petitcodiac	37	0	20	41	19	25
Subtotal	7,310	8,604	6,320	4,723	2,521	2,146
Saint John	15,432	9,243	16,080	7,707	6,352	10,884
Nashwaak	13,380	19,332	14,370	6,339	3,234	9,021
Tobique	10,657	7,668	10,730	7,293	6,910	8,245
Little Salmon	319	414	970	248	192	34
Kennebecasis	2,231	3,852	5,940	3,011	1,405	2,639
Hammond	4,447	4,734	4,340	2,665	962	2,665
Subtotal	46,466	45,243	52,430	27,263	19,055	33,488
Magaguadavic	476	351	680	621	500	560
Didgequash	215	414	140	248	154	181
Saint Croix	37	90	80	0	0	379
Subtotal	728	855	900	869	654	1,120
Restigouche	10,003	7,542	8,150	4,475	4,658	4,416
Upsalquitch	2,476	1,377	2,940	1,187	2,425	2,156
Kedgwick	1,123	675	1,080	124	308	664
Subtotal	13,602	9,594	12,170	5,786	7,391	7,236
Jacquet	981	549	660	317	19	508
Nepisiguit	3,599	3,429	4,140	2,444	7,084	7,365
Tetagouche	66	162	180	13	0	69
Middle	0	324	50	0	0	0
Subtotal	4,646	4,464	5,030	2,774	7,103	7,942
Kouchibouguac	215	549	280	82	0	232
Buctouche	0	90	100	13	0	94
Subtotal	215	639	380	95	0	326
All Other Rivers	2,960	2,628	2,050	1,892	981	1,535
TOTALS	157,456	161,028	177,580	104,280	104,055	129,962

TABLE 3. Atlantic salmon catch, 1986 New Brunswick sport fishery

River	Black Salmon April 15-May 15	Early Bright Salmon June 1-Aug. 30	Late Bright Salmon Sept. 1-Oct. 31	Early & Late Bright Salmon June 1-Oct. 3
Main Southwest Miramichi	7,762	14,938	5,287	20,225
Little SW Miramichi	301	4,407	931	5,338
Northwest Miramichi	853	5,175	534	5,709
Sevogle	0	2,095	232	2,327
Renous	26	3,018	767	3,785
Dungarvon	0	810	103	913
Cains	189	163	1,819	1,982
Black	0	0	17	17
Rocky Brook	0	50	0	50
Clearwater Brook	0	43	0	43
Bartholomew River	0	0	0	0
North Pole	0	0	0	0
Subtotal	9,131	30,699	9,690	40,389
Bartibog	0	17	155	172
Tabusintac	112	301	129	430
Big Tracadie River	25	0	51	51
Caraquet	0	0	17	17
Pokemouche	0	0	0	0
Subtotal	137	318	352	670
Big Salmon River	0	370	94	464
Alma	0	0	0	0
Little (Coverdale River)	0	0	0	0
Petitcodiac	0	0	0	0
Subtotal	0	370	94	464
Saint John	0	3,769	491	4,260
Nashwaak	0	1,759	724	2,483
Tobique	0	2,104	163	2,267
Little Salmon	0	60	0	60
Kennebecasis	0	338	353	741
Hammond	0	51	60	111
Subtotal	0	8,131	1,791	9,922
Magaguadavic	0	25	94	119
Didgequash	0	0	0	0
Saint Croix	0	34	0	34
Subtotal	0	59	94	153
Restigouche	0	6,545	0	6,545
Upsalquitch	0	2,277	0	2,277
Kedgwick	0	707	0	707
Subtotal	0	9,529	0	9,529
Jacquet	0	138	232	370
Nepisiguit	0	1,664	1,293	2,957
Tetagouche	0	0	0	0
Middle	0	0	0	0
Subtotal	0	1,802	1,525	3,327
Kouchibouquac	8	0	51	51
Buctouche	8	0	94	94
Subtotal	16	0	145	145
All Other Rivers	0	405	120	525
Total	9,300	51,313	13,811	65,124

TABLE 4. Grilse killed and large salmon released, 1986 New Brunswick Atlantic salmon sport fishery

River	Black Salmon		Early Bright Salmon		Late Bright Salmon		Total Bright Salmon	
	Grilse Killed	Large Salmon Released	Grilse Killed	Large Salmon Released	Grilse Killed	Large Salmon Released	Grilse Killed	Large Salmon Release
Main SW Miramichi	2,113	5,649	9,306	5,632	3,027	2,259	12,333	7,891
Little SW Miramichi	60	241	3,105	1,302	629	301	3,734	1,604
Northwest Miramichi	163	690	3,726	1,449	327	207	4,053	1,656
Sevogle	0	0	1,587	508	163	69	1,750	577
Renous	86	138	2,147	871	508	258	2,656	1,129
Dungarvon	0	0	595	215	43	60	638	276
Cains	51	138	69	94	845	974	914	1,069
Black	0	0	0	0	8	8	8	8
Rocky Brook	0	0	42	8	0	0	43	8
Clearwater Brook	0	0	34	8	0	0	34	8
Bartholomew River	0	0	0	0	0	0	0	0
North Pole	0	0	0	0	0	0	0	0
Subtotal	2,473	6,856	20,611	10,087	5,550	4,136	26,163	14,266
Bartibog	0	0	8	8	138	17	146	25
Tabusintac	51	60	60	241	69	60	129	301
Big Tracadie River	0	25	0	0	25	25	25	25
Caraquet	0	0	0	0	17	0	17	0
Pokemouche	0	0	0	0	0	0	0	0
Subtotal	51	85	68	249	249	102	317	351
Big Salmon River	0	0	155	215	60	34	215	250
Alma	0	0	0	0	0	0	0	0
Little (Coverdale)	0	0	0	0	0	0	0	0
Petitcodiac	0	0	0	0	0	0	0	0
Subtotal	0	0	155	215	60	34	215	250
Saint John	0	0	2,147	1,621	258	232	2,406	1,854
Nashwaak	0	0	1,095	664	370	353	1,466	1,017
Tobique	0	0	974	1,129	94	69	1,069	1,198
Little Salmon	0	0	17	43	0	0	17	43
Kennebecasis	0	0	172	215	94	258	267	474
Hammond	0	0	25	25	17	43	43	69
Subtotal	0	0	4,430	3,697	833	955	5,268	4,655
Magaguadavic	0	0	0	25	94	0	94	25
Didgequash	0	0	0	0	0	0	0	0
Saint Croix	0	0	8	25	0	0	8	25
Subtotal	0	0	8	50	94	0	102	50
Restigouche	0	0	3,311	3,233	0	0	3,312	3,234
Upsalquitch	0	0	1,449	828	0	0	1,449	828
Kedgwick	0	0	396	311	0	0	396	310
Subtotal	0	0	5,156	4,372	0	0	5,157	4,372
Jacquet	0	0	60	77	120	112	181	189
Nepisiguit	0	0	1,121	543	897	396	2,018	940
Tetagouche	0	0	0	0	0	0	0	0
Middle	0	0	0	0	0	0	0	0
Subtotal	0	0	1,181	620	1,017	508	2,199	1,129
Kouchibouguac	8	0	0	0	43	8	43	8
Buctouche	0	0	0	0	60	34	60	34
Subtotal	8	0	0	0	103	42	103	42
All Other Rivers	0	0	189	215	94	25	284	241
Total	2,540 2532	6,941	31,798	19,505	8,000	5,802	39,808	25,316